

## Patent Abstracts of Japan

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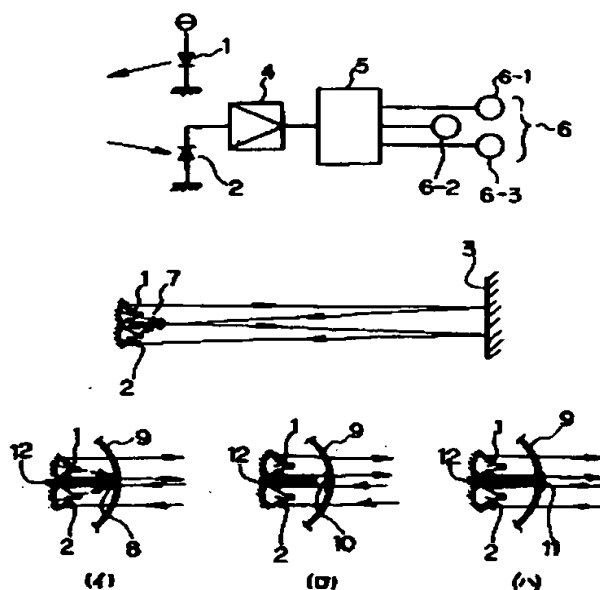
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TITLE : LIGHT BEAM TYPE OBJECT  
DETECTING DEVICE



**ABSTRACT :** **PURPOSE:** To adjust a sensitivity and to detect a fault by providing an optical bypass means for making a part of irradiating light incident to a photodetector, in the vicinity of a projector and the photodetector.

**CONSTITUTION:** An optical bypass means 7 for making a part of light emitted from a projector 1 incident to a photodetector 2 is provided on the front center part in the vicinity of the projector and the photodetector 1, 2. This means 7 provides a light shielding plate 12 between the projector 1 and the photodetector 2, and provides a light curving body 8 consisting of a plastic fiber, an optical fiber, a prism, etc. for making a part of the light from the projector 1 bypass to the photodetector 2, on the end part of this shielding plate. In this state, when a part of the light from the projector 1 is made incident to the photodetector 2 by the optical bypass means 7, an output of the photodetector 2 is applied to an input terminal of a level deciding circuit 5. Accordingly, even in case when a reflection from a structure 3 scarcely exists, a level at the time of installation is set by this input signal, and when an optical system is faulty, the input signal to the level deciding circuit 5 becomes zero, therefore, a fault of the optical system can be detected by lighting a fault pilot lamp 6-1.

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